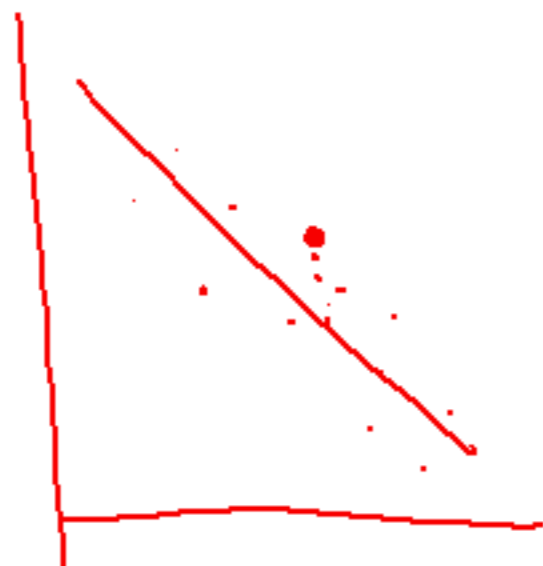


# Residuals

= errors in y-direction

= actual value - predicted val.  
(point) (from LSR line)

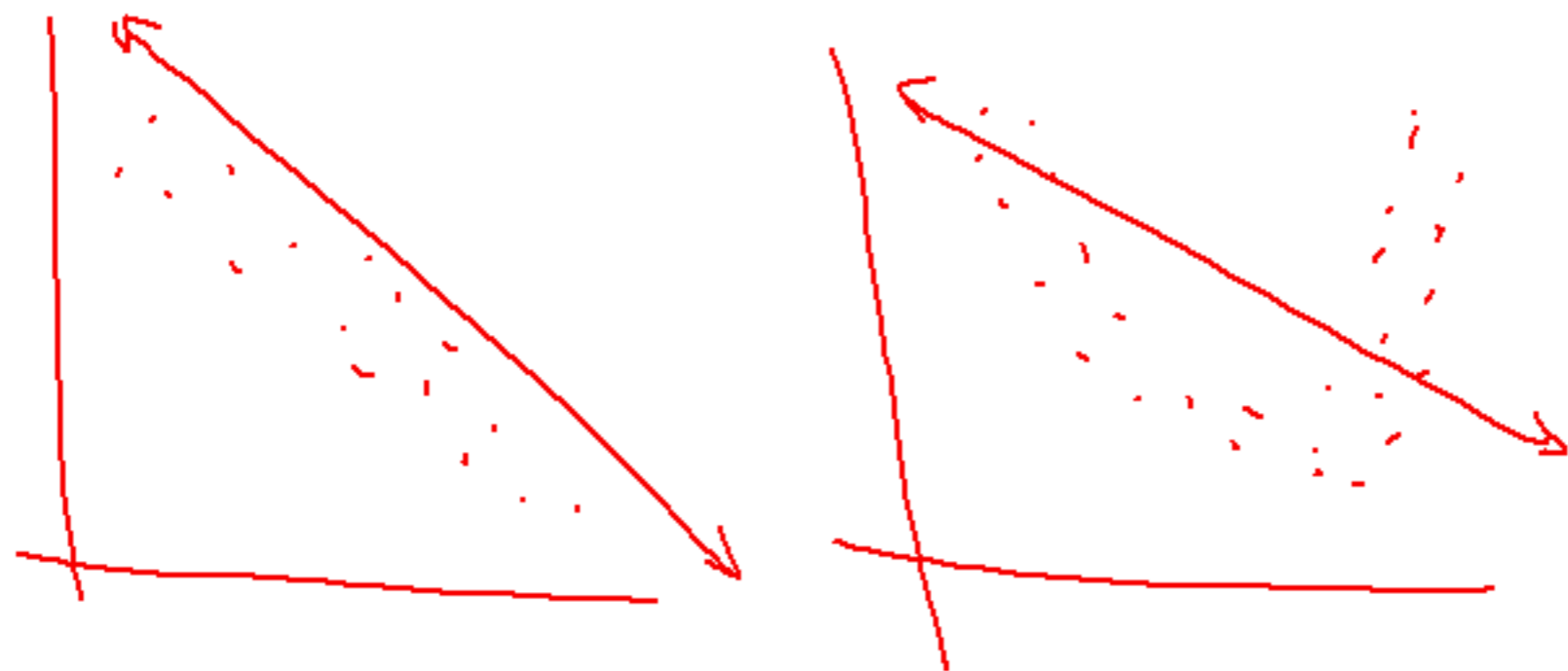
$$\sum \text{residuals} = 0$$

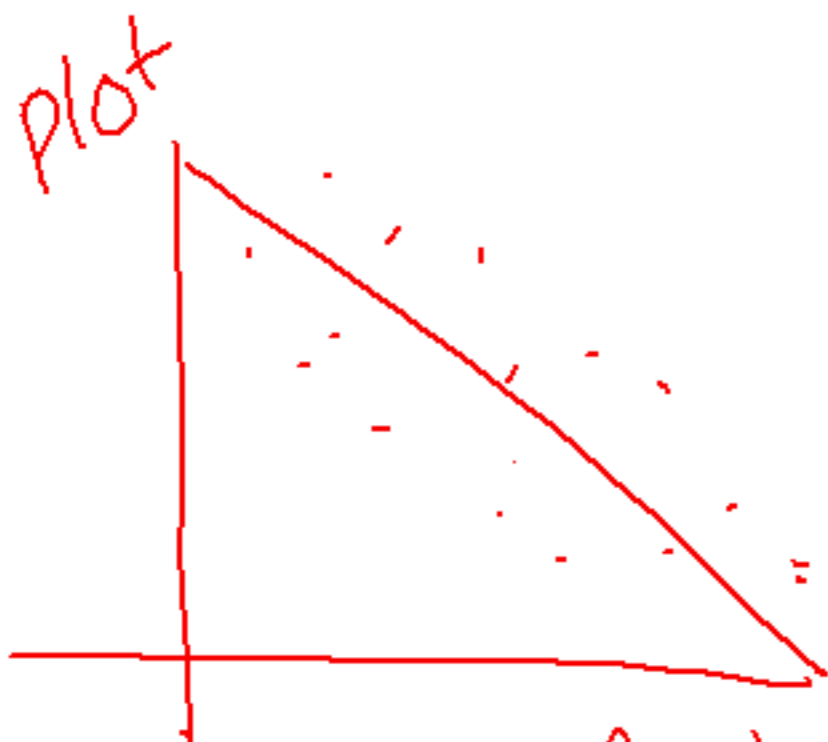


Residual  
plot

Def = Scatterplot of  
residuals vs. explanatory var.  
(x)

Helps... assess how well our  
line fits the data.

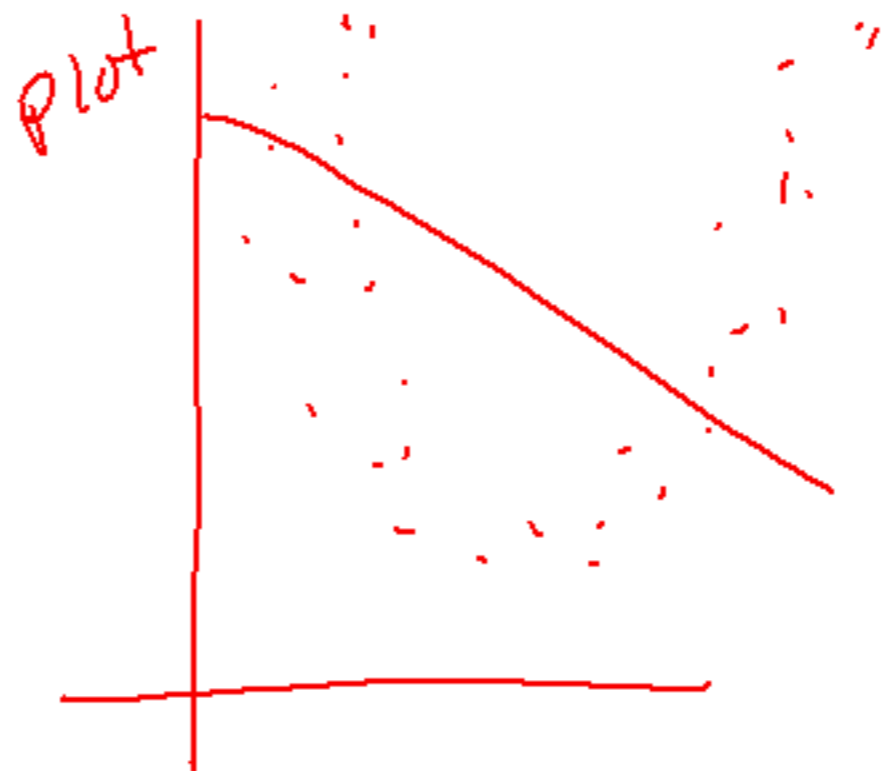




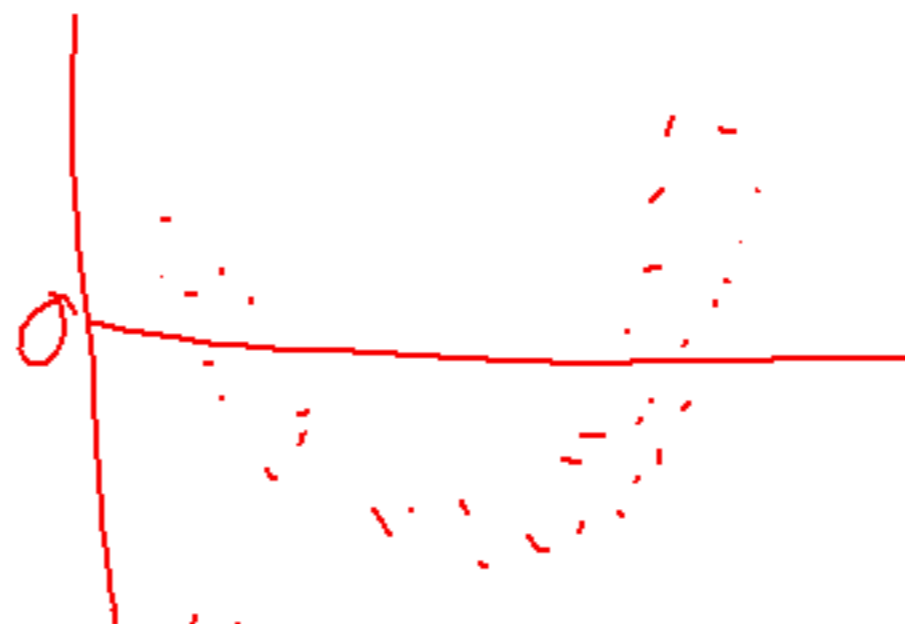
Residual plot



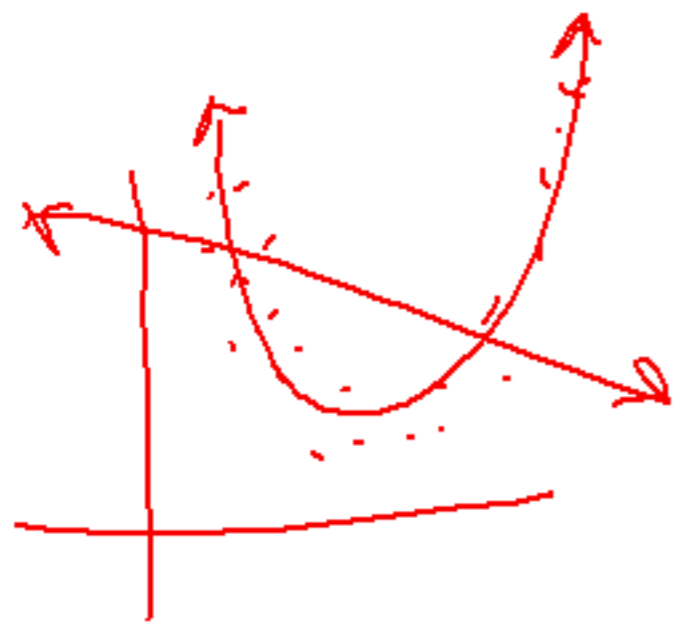
Good fit



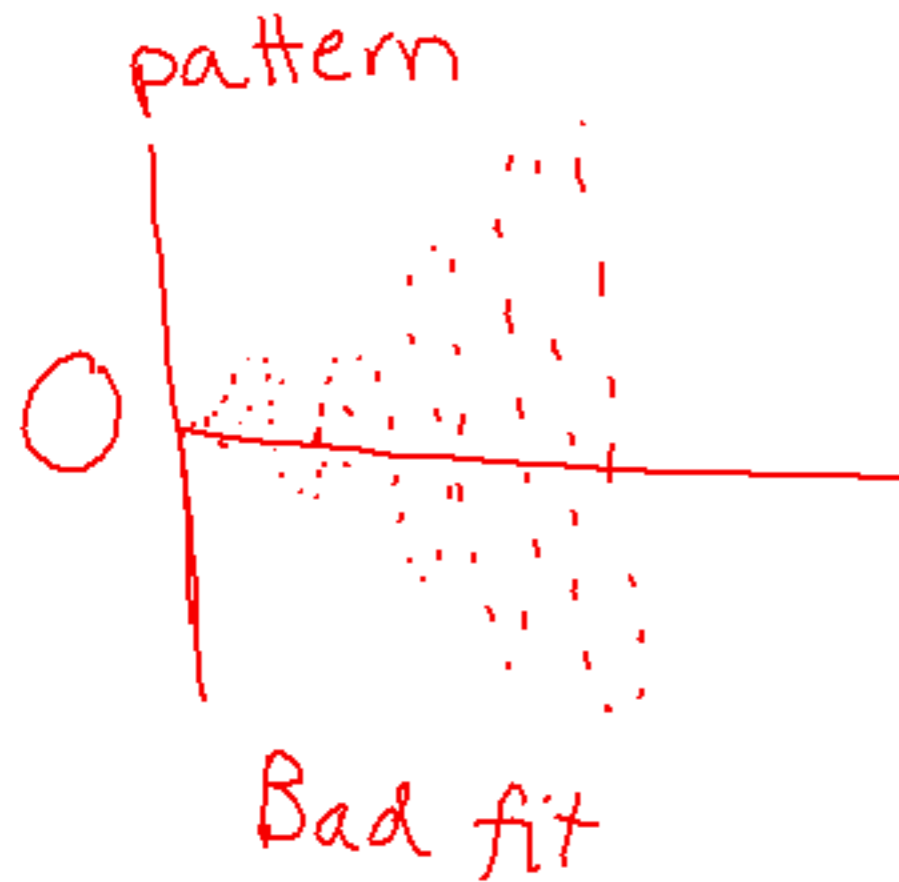
Resid plot



Line - bad fit



No pattern = scattered =  
the line is a good fit  
for the data



pattern = the line is  
not a good fit  
for the data.

another model would  
be better

quad,  
exp,  
cubic

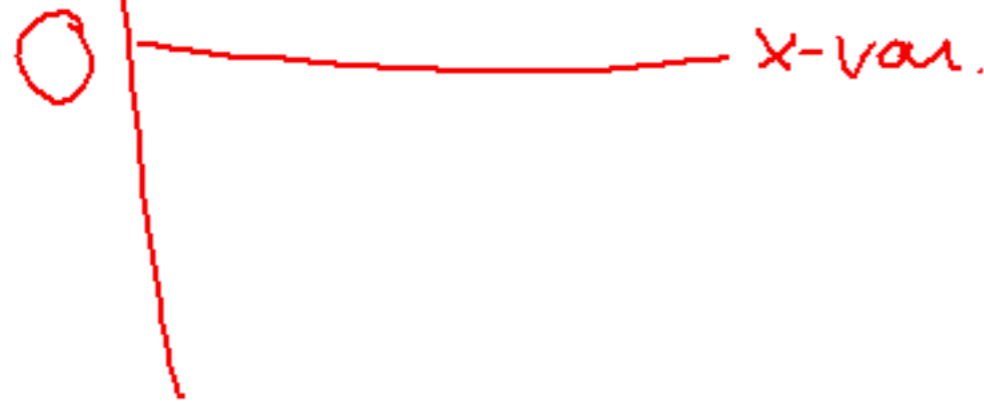
Residual plot  
on calc:

Scatterplot

X: X-var.

Y: L1 RESID

residuals



USACO-UNIT

